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Phases in Physical Activity Initiation and Maintenance Among Men with Serious Mental Illness

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Introduction

In recent years there has been growing interest in the potential contribution of participation in various forms of physical activity, exercise and sport to mental health promotion (Edwards & Fox, 2005; Fox, 2000a). A large volume of literature now exists which suggests that participation in various forms of physical activity can contribute to good mental health (for recent reviews see Callaghan, 2004; Faulkner & Taylor, 2005; Saxena et al, 2005; Stathopolou et al, 2006). Although researchers have explored the ways in which physical activity might help promote positive mental health and well-being among the general population (Biddle, 2000; Fox, 2000b), among people with a mental illness studies have instead focused predominantly on how exercise might reduce or alleviate the symptoms of mental illness. While a considerable amount of research suggests that physical activity can be effective in this regard (Beebe et al, 2005; Brosse et al, 2002; Craft, 2005), much of this work subscribes to a deficit model of mental health by focusing on how participation in physical activity helps symptoms rather than people.

The distinction between helping symptoms and helping people is important for mental health promotion among people with serious mental illness. As Repper and Perkins (2003) note:

A B S T R A C T

There is increasing interest in the role of physical activity in mental health promotion, and research suggests that regular participation can provide mental and physical health benefits. However, there is little information on how people with serious mental illness might negotiate the challenges of initiating and maintaining physical activity. This article describes an ethnographic study which explored how four men with serious mental illness successfully incorporated physical activity into their lives. Seven phases characterised the process of initiating and maintaining participation: (i) previous experience of positive physical activity, (ii) cessation of physical activity during acute stage/s of illness, (iii) stabilisation of mental health, (iv) intensive social support, (v) immediate psychosocial benefits, (vi) diversification of physical activity forms and (vii) increasing personal control. These phases are discussed with the intention of providing guidance for those interested in offering and facilitating physical activity opportunities for men with serious mental illness.

> *living with mental health problems involves a great deal more than symptom control* (p12).

For them, factors such as shared experience, finding meaning and purpose in life, having a reason for living, taking control and having choices, experiencing pleasure and building self-esteem are crucially important when living with mental illness. Few studies have considered how physical activity participation might act as an avenue for experiences of these kinds, yet this may be precisely how it can best contribute to mental health promotion. On the basis of the limited existing research which has taken this perspective, I suggest that there are several ways in which participation in various forms of physical activity might contribute to mental health promotion among people with a mental illness.

- Group-based physical activity has been shown to offer opportunities for positive social experiences which are valued by some users of mental health service (Carless & Douglas, 2004; Carter-Morris & Faulkner, 2003).
- Positive sport and exercise experiences have the potential to help improve self-esteem among people who have a serious mental illness (Faulkner & Sparkes, 1999).
- Exercise is associated with positive affect and improved mood among people with clinical depression (Faulkner & Biddle, 2004).
- Physical activity or sport has the potential to act as a personally meaningful and valuable activity which brings a sense of purpose to the lives of some people with mental health problems (Raine et al, 2002).

As well as these potential psychosocial benefits, there is general consensus that regular exercise promotes physical health through improvements in cardiovascular health and reductions in obesity (Department of Health, 2004; US DHHS, 1996). Clearly, having a mental illness does not remove one's need for physical health and fitness. Indeed, given the low levels of physical activity, poor diet and medication-induced weight gain reported among people with serious mental illness (Brown *et al*, 1999; Green *et al*, 2000), the physical health benefits of exercise may be **particularly** important for people with serious mental illness (Richardson *et al*, 2005). Research conducted to date is positive in this regard, and suggests that participating in exercise is one strategy that people with mental illness can use effectively to improve their physical health (Beebe *et al*, 2005; Fogarty & Happell, 2005).

A fundamental requirement for achievement of physical or psychosocial benefits through physical activity is **participation**. Current recommendations vary on how much participation is required for health benefits to occur. The American College of Sports Medicine (ACSM, 1998) suggests that at least three 20–60 minute exercise sessions a week are necessary for health and fitness, whereas the Department of Health (2004) recommends achieving 30 minutes of exercise on at least five days of the week. For those people with serious mental illness who lead sedentary lives (Brown *et al*, 1999), it might be argued from a physical health perspective that **any** exercise is better than none. Meeting precise exercise prescriptions in terms of frequency, intensity and duration of activity is unlikely to be critical (Edwards & Fox, 2005; Fox, 2000a), and exercise well below recommended participation levels has brought valued psychosocial benefits for people with serious mental illness (Carless & Douglas, 2004; Faulkner & Sparkes, 1999).

Despite the benefits of regular physical activity, participation rates in the population are reported to be low (Department of Health, 2004; US DHHS, 1996). Indeed, encouraging exercise initiation and maintenance is a familiar challenge to health promotion specialists, as many people find it hard to incorporate regular exercise into their lives (Buckworth, 2000). For people with serious mental illness, the combination of physical factors (such as obesity, inactivity and poor physical health) and psychosocial factors (such as low levels of motivation and social withdrawal) tend to exacerbate the difficulties of exercise initiation and maintenance seen in the general population (Richardson *et al*, 2005). The symptoms of mental illness, combined with the side-effects of anti-psychotic medication, make initiation and maintenance of new activities such as exercise challenging for mental health service users and mental health professionals alike (Childs & Griffiths, 2003).

To date, no research has been published which charts the process by which people with serious mental illness become physically active, so little is known about how they might negotiate the barriers they face in initiating and maintaining physical activity. In recognition of this omission, Richardson and colleagues (2005) suggest that:

> *further research of both a quantitative and qualitative nature is urgently needed to examine how we can help individuals with severe mental illness become more active* (p329).

The purpose of the research described here was to begin to fill this gap in order to provide guidance for mental health

professionals interested in offering and facilitating physical activity opportunities for men with serious mental illness. Drawing on data from a wider study (Carless, 2003), this research explores the experiences of men with serious mental illness who have successfully incorporated physical activity into their lives, in order to chart the process of exercise initiation and maintenance in a mental health promotion context.

Method

Participants

The participants were four men with serious mental illness who participate in regular physical activity. At the time of the research they had been mental health service users for between four and eighteen years, and their diagnoses included the term 'schizophrenia' or 'schizophrenic illness'. All were receiving anti-psychotic medication and psychological therapy, and were unable to live independently or to engage in paid employment. Participants had begun participating in exercise under the guidance of physiotherapists at a mental health rehabilitation day centre, and the exercise sessions were an integral component of each participant's weekly schedule. At the time of the research, the men had been participating in physical activity for between seven months and seven years; forms of activity included walking, running, gardening, gym-based exercise, soccer, badminton, swimming and tennis.

Procedures

Ethical clearance for the research was granted by the local NHS trust research ethics committee, and all the participants provided informed consent. In response to recent calls for qualitative research which values individual experience of exercise in the context of mental illness (Faulkner & Carless, 2006), an interpretive ethnographic approach was used which combined 'intensive, long-term observation and participation in the natural setting' with 'the more familiar technique of interviewing (Faulkner & Sparkes, 1999 p54). Given the severity of the participants' mental illness, this approach minimised the risk of emotional distress arising from participation in formal interviews (for a person experiencing paranoia, for example, a tape-recorded interview is potentially threatening). By spending a total of 18 months visiting the day centre as a participant observer and taking part in activities (physical activity groups, social activities, day-to-day life) I was able to build trust and rapport with potential participants and minimise the risk of adverse effects.

During this time, four participants were recruited through a strategy of purposive sampling (Glaser & Strauss, 1967) which, through liaison with mental health professionals at the rehabilitation centre, identified individuals who:

- could provide insight into the process of physical activity initiation and maintenance in the context of serious mental illness on the basis of personal experience
- were considered by mental health professionals to be sufficiently well to take part in the research
- were willing to take part in the research.

An idiographic approach was used to gain understanding of each participant's experiences in depth and from a variety of perspectives (Carless & Faulkner, 2003). This allowed for the high degree of individual variation in personal background, experience of mental illness, treatment programme and exercise experiences, and provided insight from in-depth examination of a few individual lives (Faulkner & Sparkes, 1999). Three methods of data collection were used with each participant.

Interviews

Between one and three in-depth semi-structured interviews were conducted with each participant. Additionally, further interviews were conducted with five mental health professionals (care co-ordinator, clinical psychologist, physiotherapist, occupational manager and exercise leader) who worked closely with each participant. The combination of interviews with service users and mental health professionals provided rich and nuanced data on the process of exercise initiation and maintenance. Descriptive questions (to learn about the participant's activities and experiences), structured questions (to investigate specific details of these activities and experiences) and contrast questions (to clarify and check meaning and interpretation) were used throughout the interviews, in an effort to generate a comprehensive and complex understanding of individual experience (Biddle *et al*, 2001).

Participant observation and informal interviews

Informal interviews and participant observations over an 18-month period were recorded in a research diary, on contact summary sheets and in personal memos. This data provided important insights into the process of physical activity participation which enriched the data gathered by the formal interviews.

Medical records

Given the complex factors involved in serious mental illness

over a period of several years (such as symptom combinations, lifestyle factors, treatment regimes), it was important to gain a thorough understanding of each participant's medical history and background. As long-time mental health service users, each participant had extensive medical records which documented the course of their illness, treatment approaches and lifestyle issues, alongside records of their participation in structured exercise sessions. Analysis of these medical records provided a chronological record of each participant's illness history to complement data generated by interview and participant observation. The inclusion of this biographical data permitted a fuller understanding of the participants' physical activity in the context of their broader life experiences.

Data analysis

Interviews were transcribed verbatim and, to preserve participants' anonymity, all potentially identifying personal details were changed. In order to become immersed in the data, I engaged in a process of repeated close reading (Maykut & Morehouse, 1994) before conducting a content analysis to identify and code themes arising from the data, using quotations as the unit of analysis (Sparkes, 2005). A second stage of analysis involved compiling the codes obtained, relating to the specific theme and the location of the quotation within the transcript, on a single, large mental map (Ryan & Bernard, 2000). The mental map allowed co-ordination and linking of the biographical data from the participant's medical records with contact summary sheets and interview data. A third stage of analysis involved development of a series of charts and matrices for each participant. These one-page displays 'show reduced, organised and focused data on a single page' (Miles & Huberman, 1994 p93) that provided a manageable visual representation of the key life experiences of each participant. Through these analyses, I was able to identify common phases of physical activity participation through which the participants had progressed.

Criteria for rigour

Four criteria for rigour proposed by Leininger (1991) are appropriate for this study.

- **Credibility** refers to the accuracy and believability of the informants and of the findings. Credibility was suggested by personal experience of the phenomena (physical activity in the context of serious mental illness) by participants and mental health professionals and a high level of agreement between informants' accounts.
- **Confirmability** refers to the availability of repeated, direct and documented evidence, alongside repeated explanations from informants about specific phenomena. Consistency between informant accounts and biographical data from medical records provided evidence of confirmability.
- **Recurrent patterning** of instances, sequences or experiences that recur over time was evidenced by the identification of clear phases in exercise initiation and maintenance that were common among the participants.
- **Saturation** was suggested by identification of no new phases in subsequent interviews and discussion.

A process of member checking (presenting findings to people with mental illness, mental health professionals, family members and carers of people with mental illness) suggested that the findings provided an accurate portrayal of the process of physical activity initiation and maintenance among men with serious mental illness.

Findings

Seven phases were identified through which all participants had progressed in the process of initiating and maintaining physical activity participation. Although experiences within each phase differed in specific details, each phase was clearly identifiable in all the participants' experiences. The seven phases are presented below, along with discussion of the implications of each phase for those who are interested in offering and facilitating physical activity opportunities for men with serious mental illness in mental health promotion contexts.

Phase 1: positive physical activity experiences prior to becoming unwell

A clear theme in the participants' experiences was their descriptions of positive physical activity experiences before they became unwell. Forms of physical activity included football (soccer), cricket, running, swimming and cycling, which were described enthusiastically in positive terms

> *'I was always playing football from the age of 16… we lived for football.'*

Another individual's description of his best ever score in cricket illustrates how participants often remembered their

sporting achievements in positive terms.

'I got 170 not out… I was just hitting the ball all over the place… That's one of my great moments, I think.'

Likewise, participants considered themselves to be generally active and physically fit adults.

'I used to ride a bike when I was at work at the time and I done a bit of swimming then so I was quite fit really.'

Brettschneider and Heim (1997) suggest that involvement in physical activity at a young age tends to encourage incorporation of sport or exercise within an individual's self-identity, which increases the likelihood of subsequent participation. Participants' continued involvement in sport or exercise into adult life indicates some degree of enthusiasm for physical activity and, perhaps, formation of an athletic identity. A history of participation in physical activity has been shown to increase the likelihood of subsequent participation (Buckworth, 2000), and it seemed to predispose these men to a resumption of physical activity.

The reasons why previous participation was important became apparent some years later, when participants re-engaged in physical activity after being diagnosed with a mental illness. In the words of one participant:

'It took quite a long time to get back to normal, the person I was. The sort of games I played in the past, when I was younger, I started playing them again'.

Comments such as this suggest that resumption of physical activity represents a return to 'normality' or life before mental illness. Because physical activity was a valued element of life prior to becoming unwell, resumption of physical activity is also a return to an element of a previous well self. A clinical psychologist believed that, in this way, exercise had contributed to the recovery of one participant.

'I would see it [exercise] as quite linked to recovery because it's maybe getting back a bit of how he used to be before he became unwell.'

Phase 2: cessation of physical activity

The low levels of physical activity reported among people with serious mental illness (Brown *et al,* 1999) applied to the men in this study. During the most severe and debilitating stages of illness, all four had taken minimal part in physical activity. For two men, cessation was abrupt and dramatic, occurring at the onset of psychotic symptoms, whereas for another a more gradual withdrawal from physical activity mirrored the slow deterioration of his mental health. Another, in contrast, had already stopped all physical activity before becoming unwell. Minimal levels of physical activity continued for all participants from onset of their mental health problems through the acute phase/s of illness. When discussing the most severe stages of illness, participants described an almost complete lack of interest in physical activity.

'I wasn't into exercise during that period – just wasn't',

or

'Then I had no interest in it… for four years I didn't do anything'.

The somewhat matter-of-fact tone of participants' descriptions of this time make it difficult to identify what it was that prevented each participant from exercising. On the basis of medical records and the accounts of mental health professionals, it seems that, for all the participants, factors inherent in the experience of acute psychotic illness simply made exercise participation impossible. One participant described how the side-effects of the anti-psychotic medication he was taking made it difficult for him to engage in physical activity.

'I was on the wrong medication – the medication was making me worse. It made me put on a lot of weight and I couldn't do exercise anyway – I was so overweight. I went up to 21 stone.'

This experience is consistent with existing research which reports significant weight gain among people receiving antipsychotic medication (Green *et al*, 2000).

It is important to recognise that it was only the **most** extreme and debilitating episodes of illness that precluded physical activity. Two participants engaged in short-term or low-level physical activity even while they were hospitalised in in-patient psychiatric wards. A mental health professional who worked with one of these men while he was hospitalised described how even then he would kick a football around.

'[Name] was one of the first people I met when I started at Brentree hospital about three years ago.

He was on a secure unit, wouldn't say boo to a goose. Even in that secure unit he would keep himself to himself, wouldn't say anything. But when I asked if he wanted a game of football he'd go out and play a game. That was the only way he expressed himself. That was the only thing he would do to interact with anyone. He wouldn't say too much, or anything at all, head down like this [mimes looking at the ground and avoiding eye contact] … just kicking a ball, doing his keep-ups.'

By any definition of health or illness, these two men were seriously unwell at this time, yet they were still able to take part in low-level physical activity. Because their mental health fluctuated somewhat during their periods of hospitalisation, it is impossible to determine whether they took part in any exercise sessions during the most serious phases of illness or during brief remissions from the most debilitating psychotic symptoms; it seems likely that their physical activity took place on their better days, when they were functioning at a level somewhat above their most severe disablement. However, it is impossible to write off the possibility that, for some people with serious mental illness, low-level physical activity may be valuable during even the more debilitating psychotic stages of illness.

Phase 3: mental health stabilisation

The medical records of all the participants document a degree of mental health stabilisation before regular physical activity participation began. Two men's mental health was noted to be 'stable' at this time, while the records of the others document some remission of psychotic symptoms. One participant explicitly spoke of being 'well enough' to exercise, because of better control of symptoms which he attributed to finding the 'right" medication'.

'I got well enough to start exercising again… I was on the right medication, I felt better and I thought to myself, well, I'll get back into running again and keeping fit again.'

Thus for these men it appears that a degree of mental health stabilisation was a **prerequisite** for participation in physical activity. While it is difficult to untangle the complex interaction of treatment types, life events and the natural course of illness, participants' medical records suggest that finding a suitable medication type and dose was an important aspect of achieving a degree of stabilisation. Because anti-psychotic medications cause side-effects which differ from person to person (British National Formulary, 2002), an element of trial and error in prescription is common. At times when participants' medication prescription was inappropriate (that is, when the side-effects were unacceptable), all four participants are recorded as having experimented with medication cessation *en route* to achieving an acceptable medication prescription. The combination of symptom control by the 'right' medication and removal of undesirable side-effects of the 'wrong' medication was likely to have been an important factor in achieving the mental health stabilisation that made regular physical activity participation possible.

Phase 4: social support for physical activity

Social support is recognised as a determinant of exercise adoption and adherence in general populations (Courneya *et al*, 2001), and may be particularly important for those with a health problem (Biddle & Fox, 1998). Although social support was obtained from a variety of sources, such as family, friends and other service users, it was the support of health professionals directly involved in the delivery of the exercise activities that proved critical. In one participant's words:

'I think it was important for Sarah [a physiotherapist] to be there first of all. It gave me a bit of confidence. Because I was so unwell I wouldn't have had no confidence – thinking I was going to have a panic attack'.

The social support provided to the participants can best be characterised as **intensive**. Whereas relatively short-term and low-level social support may be effective in certain contexts (Hardcastle & Taylor, 2001), intensive, long-term support was required by these individuals. That is, mental health professionals and physiotherapists working in mental health settings worked closely with the participants for an extended period of time which began before the initiation of physical activity and continued into the maintenance phase of physical activity. The intense level of support considered necessary is typified by the daily task of telephoning each member of the exercise group to remind them of the day's activity.

Social support took three forms. An initial stage of support can be considered **awareness raising**. Two participants described a process in which health professionals raised the idea of physical activity as a worthwhile and enjoyable activity which would also benefit their health. Physical health issues, in particular concerns about being

overweight, figured strongly in two men's decisions to begin exercising; both expressed a desire to lose weight. In this sense, awareness-raising might be considered a preliminary social support strategy in which the potential benefits of physical activity are highlighted.

A second stage of social support can be described, using the terminology of one health professional, as **engagement**. This stage involves close interaction (usually one-to-one) between a health professional and each individual, in order both to capture interest and to generate enthusiasm. During this process, a form of exercise is identified which suits the personal needs and appeals to the interests of the individual. One health professional considered this stage to be of primary importance, suggesting that once an individual is engaged (interested and immersed) in some form of physical activity, the most difficult obstacle to participation has been negotiated.

A third stage of social support – **practical facilitation** – was also important. During this stage, mental health professionals took care of the organisational aspects of the exercise sessions on a day-to-day basis and, usually, attended each exercise session in person to provide encouragement, reassurance and support. This support was generally provided one-to-one, which helped to build confidence, provide direction and generate motivation.

Phase 5: immediate psychosocial benefits

A key factor in encouraging continuation or maintenance of physical activity was the experience of immediate psychosocial benefits from even the earliest exercise sessions. Although improvements in mental health and well-being are generally considered to be most likely to be achieved by maintained participation, some research suggests that benefits are possible from acute bouts of exercise (Biddle, 2000). The immediate nature of the benefits is illustrated by one participant's reply to a question asking whether he had experienced benefits when he first started running, or only after he had progressed to running longer distances.

> *'I suppose since I've been running longer distances I've been – [pause] No! I'd say straight away really. Because you're exercising and you're feeling better, perspiring and sweating and feeling good.'*

By saying 'No', this participant explicitly goes against the received wisdom that benefits from exercise take time to accrue, to describe his own positive reactions to his first exercise sessions. This kind of experience was common among the participants and, unsurprisingly, they told how immediate benefits encouraged their attendance at subsequent exercise sessions.

While all four men experienced some kind of immediate benefit, the nature of the benefits varied. Improved concentration, 'feeling good', gaining 'a lift' and feeling more energised were mentioned by the participants as benefits that began to occur as soon as they commenced physical activity. A further psychosocial reward related to three participants' previous physical activity participation. For them, returning to physical activity signified a return to one element of their previous well self. As one individual put it:

> *'The first time I was out running again I felt on top of the world, I was actually back to what I used to be like, doing running again'.*

Conversely, one participant described how involvement in sport gave him something positive to think about. This individual told how when he plays sport:

> *'… my mind's occupied – I think other things. I don't really think about the bad things I might think about if I wasn't doing something… It **can** happen with other things, but I think sport is such an active thing it tends to have that effect on me'.*

Competence and a sense of achievement also emerged as early positive psychosocial consequences of exercise for two individuals. Both competence and a sense of achievement are recognised as potential benefits of exercise and sport, albeit more often from sustained involvement. For one participant competence was a major attraction and reward even during the early stages of participation, as football was something that he could **do** – and do well. In this sense, playing football provided him with an opportunity to re-discover his competence.

In a slightly different way, a second participant discussed a sense of achievement from his first few exercise sessions which was not competence-related. Instead, he drew feelings of achievement from having used his time effectively. For him, a major psychosocial benefit of physical activity was the feeling that rather than spending his time idly (for example watching television or just hanging around the mental health centre), he'd actually done something worthwhile and constructive. Physical activity represented a positive use of time, as it provided valued physical, social and psychological benefits, and hence deserved a place in his daily routine. Fox (1997) describes how an important consequence of perceived competence or a sense of achievement can be increased self-esteem; the mental

health professionals who took part in this research were of the opinion that this had also been the case for these participants.

Phase 6: diversification of physical activity

As participants moved into maintaining regular physical activity, improvements in competence (and an accompanying sense of achievement) were increasingly common. For one this took the form of a return to competitive running, for another it was a chance to 'bring out' his talent for sport. Another became a top goal scorer in the five-a-side group, while the fourth won a player of the year award at his football club. The medical records of all the participants at this time described 'stable' or 'improved' mental health and a diversification of physical activity experiences. Several factors seemed to facilitate this diversification.

For two men, physical health and fitness improvements made possible engagement in a greater range of exercise types which previously they were simply unable to manage. For one, significant weight loss enabled him to run further and faster, thus allowing a return to running half-marathons. For the other, general improvement in fitness and physical condition generalised across his exercise and vocational activities such as gardening and woodwork.

For the other two men, an intrinsic, life-long attraction to sport, combined with a network of sport-related friends, opened up new activities and social possibilities. Football friends introduced one of them to a new club, and encouraged his more dedicated and ambitious involvement with the five-a-side team. For the other, friends made through football, skittles and cricket participation became the friends with whom he would socialise. These social ties, combined with a desire to be involved in sport, appeared to maximise the likelihood that these men would maintain physical activity and sport participation. Through these processes, physical activity programmes initially provided at the mental health centre began to provide access to alternative activities outside the centre, thus meeting the important goal of mental health service provision of increasing social inclusion, involvement and connectedness.

For all the participants, positive experiences (such as improved confidence, competence and achievement) in physical activity contexts generalised in some way to other spheres of life. For one, increased goal scoring helped him become not only more confident about his football, but also more confident in social situations where, according to an exercise leader, he became more sociable and talkative. Likewise for another, competence in playing football seemed to generalise to his increasing ability to organise football league matches and events. For the other participants this generalisation was perhaps more profound, as both referred to increased optimism about life in general as a combined result of their exercise involvement and their experience of mental illness. One described this as greater awareness on his part of the value of life and improved feelings about his life. Another described his sense of optimism for the future and his desire to make the most of each day.

Phase 7: increasing personal control

Through the acute phases of their illness, participants showed little sign of autonomous action and tended to be (were, perhaps, required to be) passive receivers of treatments and therapies. Low levels of personal control and autonomy have been widely implicated in mental health problems of various types (Cloninger, 1999; Deci & Ryan, 1995; Nix *et al*, 1999), and may be an inherent result of experiencing serious mental illness (see Chadwick, 1997 for a discussion). Medical records as well as interview data from participants and health professionals suggest that, during the more debilitating stages of illness, the participants' lives were characterised by a high degree of dependence on their treatment providers, support workers, family and friends. These high levels of dependence during the acute phase/s of illness make the preliminary signs of autonomy in participants' accounts particularly striking. Notably, initial demonstrations of autonomy often occurred in physical activity settings.

For one participant, autonomy was important in more than one regard. First, running provided him with an effective strategy for coping with the most debilitating effect of his mental health problem: anxiety attacks. Second, exercise in general was a controllable behaviour which enabled him to feel that he was doing something to make himself feel better. In other words, when exercising, he was no longer dependent on others for his well-being or 'treatment'. As he put it:

> *'If you're keeping fit… you're actually feeling better – **making yourself** feel better'.*

Third, physical activity allowed him to exercise some personal control over his body weight.

For another, autonomous behaviour was first noticed by staff in the context of the five-a-side football team, when this individual began to generate ideas and assume control for organising events. He recognised his increasing responsibility in the five-a-side group as something that had been personally important.

'I've just been trying to organise this football league thing, and stuff has been sort of quite beneficial to me really. Something to think about and something I get quite excited about.'

Another participant's care co-ordinator identified autonomy – acting under his 'own volition' – as being closely linked to his marked mental health improvements.

'Most of the changes have been of his own volition… he's started to take control of his own life.'

This individual's enthusiasm and intrinsic attraction to sport and physical activity appeared to lead him into participating in new activities and maintaining his involvement over long periods of time.

One participant, despite improvements in his mental health over the preceding months, demonstrated low levels of autonomy, relying heavily on staff for organisation and instigation of his exercise sessions. The only mention of personal control in his case regards his decision of the order in which to perform his gym activities. It is important that independent activities were impossible for this participant under legal restrictions which prevented him from spending more than the briefest periods of time doing activities alone. However, this issue was probably not the only factor in his lack of autonomy; a key difference between him and the other participants was the recent nature of his exercise adoption. While the others had been exercising for two or more years at the time of the research, this individual had exercised for only seven months.

Time may be central to understanding the role of autonomy in participants' recovery. For three participants, autonomy and control arose only through their **continued** participation. It was not an immediate effect of the first few exercise sessions; it came about only once exercise had become a familiar and consistent aspect of life. In other words, each participant's initial forays into physical activity were made possible by the support offered by mental health professionals. There was little, if any, suggestion of personal control on the part of the participants during the initial phases of exercise. Even in one case, where autonomy subsequently influenced a diversifying involvement in new activities, initial participation was by no means autonomous; it depended heavily on intensive social support from mental health staff. The fourth participant may simply have been exercising for too short a time to have reached a stage where he could act autonomously.

Perhaps the most important aspect of these demonstrations of personal control in physical activity environments, given the links between autonomy and mental well-being (Cloninger, 1999; Deci & Ryan, 1995), is the potential for autonomous physical activity behaviours to generalise to autonomous lifestyle behaviours. On the basis of the experiences of three of the participants, it appears that personal control enacted in physical activity contexts was a preliminary step towards increasing personal control in other areas of life. Perceived personal control created positive feelings among all the participants which, perhaps through interaction between increased confidence and optimism, linked closely to their hopes for recovery. The ways in which physical activity participation might play a part in this recovery have not been the focus of this article, but remain an important topic for future physical activity and mental health research.

Conclusions

On the basis of ethnographic research with four men with serious mental illness who engage in regular physical activity, I have presented seven phases in the process of initiating and maintaining physical activity. The feedback I have received when presenting these findings to mental health professionals suggests that the seven phases are credible and reflect accurately their experiences of physical activity participation in the context of serious mental illness. However, one important caveat has been raised. The seven phases risk making the process appear too easy, too quick, too simple and too straightforward. As one mental health professional pointed out, in her experience the process is often a difficult, slow and frustrating one, characterised by setbacks at every stage.

Indeed, even among these four men, who might be considered 'successful' exercisers, there were instances when they ceased participation, lost motivation, became unwell or lost interest in physical activity. For three of these individuals, progressing from initial to maintained participation took years rather than weeks or months. From a practical point of view this caveat is important; it suggests that people with serious mental illness – and the health professionals who work with them – should not expect quick results or easy success. This implies that the social support participants identified as important is likely to be required over a significant period of time. Further, setbacks and problems should not come as a surprise, but should be considered inevitable *en route* to maintained participation.

Considering how best to help men with serious mental illness negotiate the process of physical activity initiation and maintenance, Owens' (2004 p328) metaphor of 'a glass-walled asylum' is useful. In her description of a suc-

cessful residential community for people with severe forms of mental illness, Owens characterises a glass-walled asylum as an environment which offers 'protection without segregation' (p328). In many ways, Owens' description portrays accurately the physical activity contexts experienced by the participants in this research, who sometimes lacked the resources to manage their own physical activity independently in the outside world.

Through provision of specialised physical activity in mental health settings, characterised by intensive social support and care from mental health professionals and sometimes family members or friends, the participants in this study gained a sense that they were connected to the 'real world' by physical activity, while being 'shielded from its pressures and perils' (Owens, 2004 p328). As their mental health, confidence and physical activity competence improved, the glass wall separating the participants from mainstream society was allowed to dissolve, and each individual began to participate in increasingly diverse and independent forms of physical activity in 'real world' settings. In this respect, a valuable contribution that physical activity participation might make to the promotion of mental health among people with serious mental illness is the opportunity for a gradual progression from shielded, supported activity in specialised mental health settings towards independent, autonomous activity in the community.

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